



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/497,382	06/29/95	DVIR	ML 3217-05

32M1/0603  
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AND FRIEL  
25 METRO DRIVE SUITE 700  
SAN JOSE CA 95110

MORGAN, E. EXAMINER

ART UNIT 3203 PAPER NUMBER

#7  
DATE MAILED: 06/03/97

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/497,382**

Applicant(s)  
**Dvir et al.**

Examiner  
**Eileen Morgan**

Group Art Unit  
**3203**



☒ Responsive to communication(s) filed on Oct 2, 1996

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-16 is/are pending in the application.

Of the above, claim(s) 11 and 12 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-10 and 13-16 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

EPW  
6-2-97

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Serial Number: 08/497382

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Art Unit: 3203

1. Claims 1-10, 13-16 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, "said water" lacks proper antecedent.

The claims recite structural limitations that are not correlated to one another. This is an aggregation of elements not related. For instance what is the relation of the polisher, output track, curved gate, pull-down unit, etc. Claims 6&10, it is unclear what "anaxis of symmetry" is. Symmetric to what? What is "the horizontal" referring to? Claim 7, what shape is "bellows shaped"? Claim 9 recites "a unit for mounting on a water bath....Comprising a water bath". This is unclear. Are there two water baths? Claim 13, "said water" lacks proper antecedence. Part C, "but a thin layer..." is unclear, "said window" lacks proper antecedence. Claim 14, "the plane" lacks antecedence. Which "plane" is referenced? Claim 15 and 16 are totally unclear. What "angle" is being changed? How is the water "moved"? Isn't the water moved?

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3203

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burke et al. -5,492,594 in view of Lusting et al. -5,433,651 .

4. Burke discloses all of the claimed apparatus and method including a polisher (10) with a polishing unit (11), a thickness measuring unit (25), a vacuum gripper (19) to grip wafer from a gripping position with a curved gate (around platen or dam (not shown)), and move wafer to a thickness measuring unit (25) to submerge wafer into fluid bath (30) with a window at bottom for measuring device (42) to detect thickness.

The fluid bath of Burke is not water, but an electrolyte. However, it would have been obvious at the time applicant's invention was made to a person of ordinary skill in the art since Examiner takes Official Notice of the equivalents of water and electrolytic fluid take used in measuring devices and the choice of either fluid would be within the level of ordinary skill in the art.

Burke does not disclose an optical measuring device. However, Lusting teaches measuring a wafer through the use of an

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optical device. Therefore, it would have been obvious at the time applicant's invention was made to a person of ordinary skill in the art to substitute the electrical measuring device of Burke with the optical device taught by Lusting in order to obtain not only thickness but also numerous other pre-set conditions of the wafer can be determined.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burke, alone.

Burke discloses all of the claimed apparatus and method including a polisher (10) with a polishing unit (11), a thickness measuring unit (25), a vacuum gripper (19) to grip wafer from a gripping position with a curved gate (around platen or dam (not shown)), and move wafer to a thickness measuring unit (25) to submerge wafer into fluid bath (30) with a window at bottom for measuring device (42) to detect thickness.

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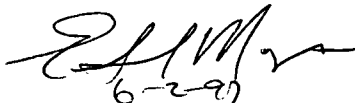
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The fluid bath of Burke is not water, but an electrolyte. However, it would have been obvious at the time applicant's invention was made to a person of ordinary skill in the art since Examiner takes Official Notice of the equivalents of water and electrolytic fluid take used in measuring devices and the choice of either fluid would be within the level of ordinary skill in the art.

6. Any inquiry concerning this communication should be directed to E. Morgan at telephone number (703) 308-1743.

Morgan/DMM

May 14, 1997



6-29  
Eileen Morgan

Primary Patent Examiner